



National Information Exchange Model (NIEM)

Executive Introduction

January 23, 2007

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Information sharing is a national imperative



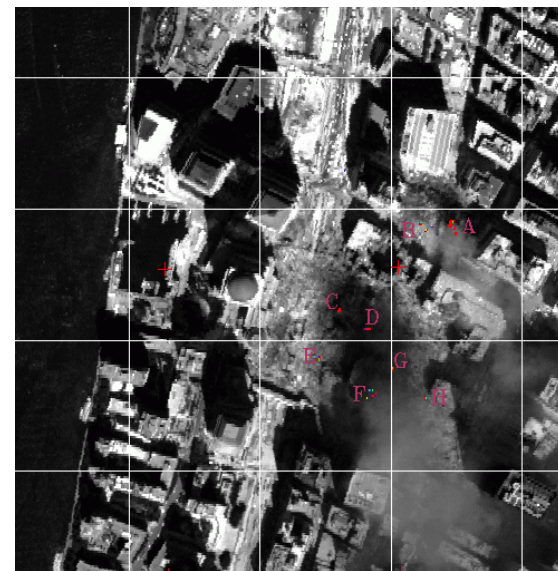
Detecting, preventing, responding to and investigating crimes, disasters and terrorist acts requires the exchange of information among multiple agencies.

Exchanges must be timely and accurate and therefore highly automated.

Most existing computer systems are not designed to facilitate information sharing across disciplines.

Automated information sharing between agencies requires the definition of common standards for linking disparate systems.

Local, state, tribal, and federal agencies need to adopt common information sharing standards to facilitate information sharing



Information Exchanges Help Do The Job



- Exchanges using a national standard will make it easier to:
 - Forward incident and arrest data from police to prosecutors
 - Determine the status of beds, staff, and resources at hospitals
 - Send call data from a 9-1-1 center to multiple dispatch centers
 - Report suspicious activities from field officers to investigators and from one fusion center to another
 - Report the status of emergency response teams and resources
 - Screen persons or cargo entering the country

- A data **standard**
 - with agreed-upon terms, definitions, and formats.
- **Independent** of the way data is stored in individual systems.
- A way to achieve **consensus** on the content of specific exchanges
- A structured approach to data interoperability

The Historical Perspective



- NIEM was launched on February 28, 2005, through an agreement between the U.S. Departments of Justice and Homeland Security
- NIEM was populated by the work from the successful Global Justice XML Data Model
- NIEM was expanded in its first release by additional communities of interest,
- The Program Manager of the Information Sharing Environment fostered national emphasis on the use of NIEM in support of counter-terrorism initiatives
- Pilot projects in DOJ and DHS are testing the initial release
- Efforts are underway to create pilots in state and local governments
- NIEM 1.0 is now available at www.niem.gov.

Proof of Concept and Success



- AMBER Alert, built on GJXDM, is a proven success and has helped rescue more than 230 children nationwide.
- Nlets - State owned system connecting all 50 states, territories along with every federal agency with a justice component.
 - Every agency, province many access pts.
 - Currently accepting nearly 90 million transactions per month
 - Rap sheets are one of the highest volume XML transactions
- Any police officer in Ohio can search 600 separate police computer systems with a single GJXDM based query and response
- In Maricopa County, AZ, a web service sends GJXDM compliant arrest information from the police to the prosecutor thus eliminating redundant data entry
- In central Florida, 700 offenders were jailed over 12 months due to GJXDM-enabled sharing of data among 150 agencies; these offenders would not have been arrested without this information sharing

- Eurojust is the organization set up by the European Union to handle the investigation and prosecution of cross border crimes and organized crime in the EU.
 - The software engineers at Eurojust report that the development time to build the initial exchanges to implement an EU official arrest warrant was cut by 50% thanks to their adoption of the GJXDM in the development process.
- An officer assigned to the case of two slain New York City detectives contacted Pennsylvania authorities to request information on two suspects.
 - Using GJXDM-conformant exchanges, it took officials just a few hours, rather than days or weeks, to gather and forward information on the suspects, including date of birth, social security number, finger print, photo, and vehicle.
 - As a result, the two suspects were quickly located and brought into custody.

- OASIS Electronic Court Filing Technical Committee decided at its December meeting to target a 2008 release of their (large) set of IEPDs conformant with NIEM.
- DHS to develop NIEM IEPDs for hospital availability in response to an incident (due in April)
- Suspicious Activity Report IEPD under development
- Two RFPs have been released to develop NIEM IEPDs for Fusion Centers
- DOJ and DHS grant language
- California is planning to convert their court CMS interfaces to NIEM in the next major version of the CMS project (4.0). California is also planning to map their e-filing standard, 2GEFS, to NIEM.
- DOJ programs, such as LCMS and Sentinel, through their system design efforts are ensuring their exchanges will be NIEM-conformant.
- Minnesota has adopted NIEM for 3 developing statewide justice information systems using a NIEM/GJXDM based state data model
- Connecticut is building a metadata repository covering GJXDM and NIEM elements and definitions as a state standard

Terrorist Watchlist Person Data Exchange Standard (TWPDES)

- National Priority Exchange Panel developing TWPDES NIEM IEPD to meet PM ISE requirements

DHS Person Screening

- Are in the planning stages of building a NIEM conformant IEPD

DHS Infrastructure Protection

- Will be building a NIEM IEPD

DHS Emergency Management

- Adding Disaster Management, Resource Message contents

Law enforcement National Data Exchange (N-DEx)

- Incident IEPD Draft has been published to the Clearinghouse

NLETS and New York State

- Developing a NIEM conformant rap sheet.

State and Local IEPD Development



Fusion Center support

- Pennsylvania, New York, and Virginia

Transportation

- The Intelligent Transportation/Public Safety Exchange project is exploring 11 exchanges identified in NIEM vs. Global JXDM. Most likely the IEPDs would be conformant with NIEM 2.0. The project is about using IEEE 1512 standards developed by DOT and making the appropriate transformations to NIEM.

CJIS Criminal Services

- New York State is developing approximately 20 NIEM IEPDs.

Statewide interest

- States are looking into developing a family of IEPDs to support many activities including prescription drug information exchange

Ohio School Safety

- Intending to make dissemination of school floor plans and evacuation information NIEM Conformant

The NIEM Value Proposition



- Agencies and organizations that adopt NIEM will be able to:
 - Gain faster access to critical information
 - Create automated information exchanges with partners
 - Leverage existing systems and avoid high costs of system replacement
 - Engage additional information exchange partners in the future.
 - Save time and funding by reusing already developed IEPDs
 - Participate in ISE Implementation Plan
 - Contribute to shaping national standards for information sharing

Cost Savings



- Using GJXDM the Pennsylvania State Justice Network (JNET) has reduced the message development process from an average of 9 months to approximately 6 weeks.
 - More importantly, Pennsylvania has implemented a standardized, repeatable process, for all integrated technology solutions, and potential taxpayer savings have been identified in the millions of dollars.
- Using GJXDM, the Missouri Office of State Courts Administrator (OSCA) reports having reduced development time by 50 percent, potential savings of \$1.6 million over two years.
 - Previously, converting each court's system took 18-24 months, while they are now taking 6-9 months
- Minnesota's Department of Public Safety anticipates saving over \$10 million over a three-year period by using the XML Data Model rather than developing its own statewide standard for information systems.

- Agencies can begin now to implement information exchanges based on NIEM
- NIEM is being used to create national priority and state exchanges
- A new release with additional improvements will be issued in 2007.
- There will be expanded training and technical assistance efforts
- Expand the participating communities of interest

Conclusion



- For more information visit the NIEM web site (<http://www.niem.gov>)
- Contact NIEM by email at information@niem.gov
- Help Desk @ <http://it.ojp.gov/gjxdm/helpdesk/>

Questions and Discussion